AMENDMENTS TO THE CLAIMS

1. (Previously presented) An isolated nucleic acid comprising a transcriptional unit encoding a signal sequence of a structural protein of a first flavivirus and an immunogenic flavivirus antigen, wherein the antigen is of a second flavivirus or the antigen is a chimeric antigen comprising amino acid sequence from more than one flavivirus, wherein the signal sequence is a Japanese encephalitis virus prM signal sequence, and wherein the transcriptional unit directs the synthesis of the antigen.

2. (Canceled)

3. (Previously presented) The nucleic acid of claim 1, wherein the immunogenic flavivirus antigen is of a flavivirus selected from the group consisting of yellow fever virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, St. Louis encephalitis virus, Powassan virus and West Nile virus.

4. (Previously presented) The nucleic acid of claim 1, wherein the transcriptional unit encodes a prM signal sequence of Japanese encephalitis virus and an M protein and an E protein of West Nile virus.

5. (Previously presented) The nucleic acid of claim 1, wherein the transcriptional unit encodes a prM signal sequence of Japanese encephalitis virus and an M protein and an E protein of yellow fever virus.

6. (Previously presented) The nucleic acid of claim 1, wherein the transcriptional unit encodes a prM signal sequence of Japanese encephalitis virus and an M protein and an E protein of St. Louis encephalitis virus.

7. (Previously presented) The nucleic acid of claim 1, wherein the transcriptional unit encodes a prM signal sequence of Japanese encephalitis virus and an M protein and an E protein of Powassan virus.

8. (Previously presented) The nucleic acid of claim 1, wherein the flavivirus antigen is selected from the group consisting of an M protein, an E protein, both an M protein and an E protein, a

portion of an M protein, a portion of an E protein, and both a portion of an M protein and a portion of an E protein, or any combination thereof.

9. (Previously presented) The nucleic acid of claim 8, wherein the antigen is both the M protein and the E protein.

10. (Original) The nucleic acid of claim 1, wherein the nucleic acid is DNA.

11. (Original) The nucleic acid of claim 10, comprising a nucleotide sequence selected from the group consisting of SEQ ID NO:15, SEQ ID NO:19, SEQ ID NO:21 and SEQ ID NO:23.

12. (Original) The nucleic acid of claim 1, wherein the transcriptional unit comprises a control sequence disposed appropriately such that it operably controls the synthesis of the antigen.

13. (Original) The nucleic acid of claim 12, wherein the control sequence is the cytomegalovirus immediate early promoter.

14. (Previously presented) The nucleic acid of claim 1, comprising a Kozak consensus sequence located at a translational start site for a polypeptide comprising the antigen encoded by the transcriptional unit.

15. (Original) The nucleic acid of claim 1 wherein the transcriptional unit comprises a poly-A terminator.

16. (Previously presented) An isolated cell comprising the nucleic acid of claim 1.

17. (Original) A composition comprising the nucleic acid of claim 1 and a pharmaceutically acceptable carrier.

18. (Currently amended) A method of ~~immunizing~~ eliciting an immune response in a subject against infection by a flavivirus, comprising administering to the subject an effective amount of the composition of claim 17.

19. (Previously presented) The method of claim 18, wherein the flavivirus antigen is of a second flavivirus selected from the group consisting of yellow fever virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, St. Louis encephalitis virus, Powassan virus and West Nile virus, or the flavivirus antigen is a chimeric antigen comprising amino acid sequence from more than one flavivirus, wherein the flaviviruses are selected from yellow fever

virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, Japanese encephalitis virus, St. Louis encephalitis virus, Powassan virus and West Nile virus.

20. (Previously presented) The method of claim 18, wherein the flavivirus antigen is selected from the group consisting of an M protein, an E protein, both an M protein and an E protein, a portion of an M protein, a portion of an E protein, and both a portion of an M protein and a portion of an E protein, or any combination thereof.

21. (Previously presented) The method of claim 20, wherein the flavivirus antigen is both the M protein and the E protein, and wherein a cell within the body of the subject, after incorporating the nucleic acid within it, secretes subviral particles comprising the M protein and the E protein.

22. (Original) The method of claim 18, wherein the transcriptional unit encodes a signal sequence of Japanese encephalitis virus, and an M protein and an E protein of West Nile virus.

23. (Original) The method of claim 18, wherein the transcriptional unit encodes a signal sequence of Japanese encephalitis virus, and an M protein and an E protein of yellow fever virus.

24. (Original) The method of claim 18, wherein the transcriptional unit encodes a signal sequence of Japanese encephalitis virus, and an M protein and an E protein of St. Louis encephalitis virus.

25. (Original) The method of claim 18, wherein the transcriptional unit encodes a signal sequence of Japanese encephalitis virus, and an M protein and an E protein of Powassan virus.

26. (Original) The method of claim 18, comprising administering the composition to the subject in a single dose.

27. (Original) The method of claim 18, wherein the composition is administered via a parenteral route.

28. (Previously presented) The nucleic acid of claim 1, wherein the antigen comprises a St. Louis encephalitis virus antigen.

29. (Previously presented) The method of claim 18, wherein the antigen comprises a St. Louis encephalitis virus antigen.

30. (Previously presented) The nucleic acid of claim 1, wherein the chimeric antigen comprises a Japanese encephalitis virus antigen.

31. (Previously presented) The method of claim 18, wherein the chimeric antigen comprises a Japanese encephalitis virus antigen.

32. (Previously presented) The nucleic acid of claim 1, wherein the antigen comprises a yellow fever virus antigen.

33. (Previously presented) The method of claim 18, wherein the antigen comprises a yellow fever virus antigen.

34. (Previously presented) The nucleic acid of claim 1, wherein the antigen comprises a dengue virus antigen.

35. (Previously presented) The method of claim 18, wherein the antigen comprises a dengue virus antigen.

36. (Previously presented) The nucleic acid of claim 1, wherein the antigen comprises a West Nile virus antigen.

37. (Previously presented) The method of claim 18, wherein the antigen comprises a West Nile virus antigen.

38-43. (Canceled)

44. (Previously presented) The nucleic acid of claim 1, wherein the signal sequence is a modified Japanese encephalitis virus signal sequence comprising the nucleotide sequence of SEQ ID NO: 14 or SEQ ID NO: 27.

45. (Previously presented) The nucleic acid of claim 1, wherein the immunogenic flavivirus antigen is a chimeric antigen comprising amino acid sequence from more than one flavivirus, wherein the flaviviruses are selected from yellow fever virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, Japanese encephalitis virus, St. Louis encephalitis virus, Powassan virus and West Nile virus.

46. (Previously presented) The nucleic acid of claim 1, wherein the immunogenic flavivirus antigen is a chimeric antigen comprising amino acid sequence from the first flavivirus and a second

flavivirus, wherein the flaviviruses are selected from yellow fever virus, dengue serotype 1 virus, dengue serotype 2 virus, dengue serotype 3 virus, dengue serotype 4 virus, Japanese encephalitis virus, St. Louis encephalitis virus, Powassan virus and West Nile virus.

47. (Previously presented) The nucleic acid of claim 46, wherein the first flavivirus is Japanese encephalitis virus.

48. (Previously presented) The nucleic acid of claim 46, wherein the immunogenic flavivirus antigen comprises a chimeric E protein.

49. (Previously presented) The nucleic acid of claim 46, wherein the immunogenic flavivirus antigen comprises an M protein from the second flavivirus and a chimeric E protein comprising amino acid sequence from Japanese encephalitis virus and the second flavivirus.

50. (Previously presented) The nucleic acid of claim 49, wherein the chimeric E protein comprises a carboxy terminal portion from Japanese encephalitis virus, wherein the carboxy terminal portion is 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50% or 75% of the chimeric E protein.

51. (Previously presented) The nucleic acid of claim 50, wherein the carboxy terminal portion is at least 10% of the chimeric E protein.

52. (Previously presented) The nucleic acid of claim 51, wherein the carboxy terminal portion is at least 20% of the chimeric E protein.

53. (Previously presented) The nucleic acid of claim 49, wherein the second flavivirus is a dengue virus.

54. (Previously presented) The nucleic acid of claim 49, wherein the second flavivirus is a St. Louis encephalitis virus.